

REMARKS

Claim 1 has been amended for greater clarity. The claim amendments are supported by the specification (e.g., page 12, lines 3-6; and Figure 1). No new matter has been introduced. The amendments are made solely to expedite prosecution of the application, and Applicants reserve the right to prosecute claims of similar or differing scope in subsequent applications.

Applicants note that the Examiner has withdrawn the previous rejections under 35 U.S.C. § 102(b), § 102(e), and § 103(a) in view of Applicants' Response filed on February 15, 2006.

Applicants respectfully request reconsideration in view of the following remarks. Issues raised by the Examiner will be addressed below in the order they appear in the prior Office Action.

Priority

The Examiner has acknowledged that this application claims benefit of US provisional application (Ser. No. 60/096,818) filed on 8/17/1998.

Objection to the Specification

The Examiner objects to the specification for improper disclosure of polynucleotide sequences. In response, Applicants enclose herewith a Sequence Listing which include the disclosed sequences. Applicants further submit that the original specification already includes sequence identifiers (e.g., SEQ ID NO) for the disclosed sequences (e.g., page 18, line 15; page 19, line 7; page 21, lines 7, 22; and page 22, line 14). Accordingly, reconsideration and withdrawal of this objection are respectfully requested.

Claim Rejections under 35 U.S.C. § 102(e)

Claims 1-3 and 6-10 are rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Ruffner et al. (USPN. 6,586,180). Applicants respectfully traverse the rejection.

Applicants submit that claim 1 explicitly specifies that the sequential treatment of said DNA molecules with the exonuclease III and the nuclease specifically removes the 3'-untranslated region from the end downstream of the open reading frame. One of ordinary skill would understand that the open reading frame is not removed by the claimed method. Nonetheless, solely for greater

clarity, Applicants have amended independent claim 1 to recite that the sequential treatment of said DNA molecules with the exonuclease III and the nuclease specifically removes the 3'-untranslated region from the end downstream of the open reading frame but not the open reading frame. Support for the claim amendments can be found throughout the specification (e.g., page 12, lines 3-6; and Figure 1).

The standard for anticipating a claim is clearly outlined in MPEP 2131, and this standard is further supported by the Courts. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1978).

Applicants contend that Ruffner et al. fail to satisfy the criteria for anticipating the present invention. Ruffner et al. describe a method of **non-specifically** generating serial deletions extended from one end of a target cDNA molecule (see, e.g., column 5, lines 34-67 and column 6, lines 1-47). Specifically, Ruffner et al. teach that "[t]he fragment libraries contain all overlapping fragments **spanning the entire length** of the gene of interest (see column 5, lines 54-55, emphasis added). Ruffner et al. do not teach or suggest a method for specifically removing the 3'-untranslated region from the end downstream of the open reading frame but not the open reading frame. Accordingly, Ruffner et al. do not teach all the elements of independent claim 1 and fail to anticipate claim 1. For the same reasons, Applicants submit that all claims depending from claim 1 are not anticipated by Ruffner et al.

Applicants note that the Examiner has also cited Example 4 of Ruffner et al. (column 12, lines 54-67; and column 13, line 1-17) which allegedly anticipate the claimed invention. See Office Action, page 3, lines 23-24. Applicants respectfully disagree.

Applicants submit that the Examiner has mischaracterized Ruffner's Example 4. Example 4 of Ruffner et al. describes initial digestion of plasmid DNA with PstI and XbaI and subsequent digestion of the DNA molecules with exonuclease and mung bean nuclease (see, column 12, lines 55-65). Digestion with the PstI enzyme would generate 3' overhangs due to its recognition site CTGCA[^]G (see a printout on PstI from New England Biolabs, enclosed herewith as **Exhibit A**).

Digestion with XbaI would generate 5' overhangs due to its recognition site T[^]CTAGA (see a printout on XbaI from New England Biolabs, enclosed herewith as **Exhibit B**). Accordingly, digestion of both PstI and XbaI enzymes could not possibly generate a blunt end at either end of the DNA molecules, contrary to the Examiner's assertion. Thus, Example 4 of Ruffner et al. at least fail to teach step (a) of claim 1.

In view of the above, Applicants respectfully submit that Ruffner et al. fail to meet the limitations of the present claims and thus fail to anticipate the claimed subject matter. Reconsideration and withdrawal of this rejection are respectfully requested.

Claim Rejections under 35 U.S.C. § 103(a)

Claims 4-5 and 11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ruffner et al. (USPN. 6,586,180) in view of Szostak et al. (USPN. 6,214,553). Applicants respectfully traverse these rejections.

As discussed above, Ruffner et al. fail to anticipate the subject matter as recited in independent claim 1. Specifically, Ruffner et al. do not teach or suggest a method for specifically removing the 3'-untranslated region from the end downstream of the open reading frame but not the open reading frame. Applicants submit that Szostak et al. cited by the Examiner fail to bridge the gap between Ruffner et al. and the claimed invention. Further, the cited art teaches generating deletion fragments **spanning the entire length** of the gene of interest, simply teaching away from the present invention. One of ordinary skill in the art would have had no motivation to modify Ruffner's method to arrive at the present invention. Thus, the Examiner has not established a *prima facie* case of obviousness in this case.

In view of the above, Applicants submit that independent claim 1 is patentably non-obvious over Ruffner et al. In addition, Applicants submit that all claims depending from claim 1 recite further limitations thereon, and hence are a fortiori patentably non-obvious over Ruffner et al. Reconsideration and withdrawal of rejection under 35 U.S.C. § 103(a) is respectfully requested.

CONCLUSION

For the foregoing reasons, Applicants respectfully request reconsideration and withdrawal of the pending rejections. Applicants believe that the claims are now in condition for allowance and early notification to this effect is earnestly solicited. Any questions arising from this submission may be directed to the undersigned at (617) 951-7000.

If an additional fee is due, please charge our Deposit Account No. 18-1945, under Order No. COTH-P03-504 from which the undersigned is authorized to draw.

Dated: August 4, 2006

Respectfully submitted,

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